

WEST

 Generate Collection

L7: Entry 3 of 7

File: USPT

Nov 9, 1999

DOCUMENT-IDENTIFIER: US 5980954 A
TITLE: Treatment of autoimmune diseases

DEPR:

Preferrably, the stressors to which the leucocytes in the extracted blood aliquot are subjected are a temperature stress (blood temperature above body temperature), an oxidative environment, such as a mixture of ozone and oxygen bubbled through the blood aliquot, and ultraviolet radiation, simultaneously or successively, but preferably simultaneously.

WEST **Generate Collection**

L7: Entry 4 of 7

File: USPT

Nov 10, 1998

DOCUMENT-IDENTIFIER: US 5834030 A

TITLE: Method of increasing the concentration of nitric oxide in human blood

CLPR:

12. The method of claim 11 wherein the ozone gas is contacted with a blood aliquot as a mixture of ozone in an oxygen-ozone gas stream having an ozone concentration of from 0.5 .mu.g/ml to about 100 .mu.g/ml.

CLPV:

(b) in vitro contacting the extracted aliquot of blood with a nitric oxide concentration-increasing effective amount of ozone gas, as a mixture of ozone in an oxygen-ozone gas stream having an ozone concentration of from about 0.5 .mu.g/ml to about 100 .mu.g/ml, while the aliquot of blood is simultaneously being subjected to ultraviolet radiation, for a period of time from about 0.5-10 minutes and at a temperature in the range of 0.degree.-56.degree. C. which does not cause marked hemolysis or major loss of platelets in the blood aliquot; and

WEST Generate Collection

L7: Entry 2 of 7

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6086552 A

TITLE: Treatment of chronic post-traumatic pain syndromes

BSPR:

Preferably, the stressors to which the leucocytes in the extracted blood aliquot are subjected are a temperature stress (blood temperature above body temperature), an oxidative environment, such as a mixture of ozone and oxygen bubbled through the blood aliquot, and ultraviolet radiation, simultaneously or successively, but preferably simultaneously.

CLPR:

3. The process of claim 2 wherein the oxidative environment stressor is a mixture of medical grade oxygen and ozone, wherein the ozone content is from 0.1 to 100 .mu.g/ml, bubbled through the blood aliquot.

CLPV:

treating the extracted aliquot extracorporeally simultaneously with an oxidative environment consisting essentially of a mixture of medical grade oxygen and ozone, wherein the ozone content is from 0.1 to 100 .mu.g/ml, bubbled through the blood aliquot;

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L7: Entry 6 of 7

File: DWPI

Jul 11, 2000

DERWENT-ACC-NO: 1999-215431

DERWENT-WEEK: 200037

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TITLE: Treating reflex sympathetic dystrophy comprises collecting aliquot of blood from patient, subjecting it to ozone/oxygen mixture and ultraviolet light and reinjecting blood into patient

INVENTOR: BOLTON, A E

PATENT-ASSIGNEE:

ASSIGNEE	CODE
VASOGEN INC	VASON

PRIORITY-DATA:

1997CA-2206180	May 27, 1997
1998US-0090465	June 4, 1998

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6086552 A	July 11, 2000	N/A	000	A61M037/00
CA 2206180 A	November 27, 1998	N/A	018	A61K035/14

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-NO
US 6086552A	June 4, 1998	1998US-0090465	N/A
CA 2206180A	May 27, 1997	1997CA-2206180	N/A

INT-CL (IPC): A61B 19/00; A61K 35/14; A61M 37/00

ABSTRACTED-PUB-NO: CA 2206180A

BASIC-ABSTRACT:

NOVELTY - The process for treating reflex sympathetic dystrophy (RSD) comprises extracting an aliquot of blood from the patient, treating the extracted aliquot extracorporeally with ultraviolet light and an ozone/oxygen mixture, and reinjecting the treated aliquot into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated aliquot is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated aliquot may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6

weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the blood is from the patient him-/herself therefore not requiring extraneous antigens.

ABSTRACTED-PUB-NO:

US 6086552A

EQUIVALENT-ABSTRACTS:

NOVELTY - The process for treating reflex sympathetic dystrophy (RSD) comprises extracting an aliquot of blood from the patient, treating the extracted aliquot extracorporeally with ultraviolet light and an ozone/oxygen mixture, and reinjecting the treated aliquot into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated aliquot is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated aliquot may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6 weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the blood is from the patient him-/herself therefore not requiring extraneous antigens.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: TREAT REFLEX SYMPATHETIC DYSTROPHY COMPRIZE COLLECT ALIQUOT BLOOD
PATIENT SUBJECT OZONE OXYGEN MIXTURE ULTRAVIOLET LIGHT BLOOD PATIENT

DERWENT-CLASS: B04 P31 P34

CPI-CODES: B04-B04D5; B11-C08E2; B12-K04A2; B14-F02C; B14-F02D;

CHEMICAL-CODES:

Chemical Indexing M2 *01*

Fragmentation Code

C108 C550 C810 M411 M424 M431 M740 M782 M904 M905

M910 N103 P411 P527 P528

Specfic Compounds

01779K 01779T 01779M

Registry Numbers

1779U

Chemical Indexing M2 *02*

Fragmentation Code

C408 C550 C810 M411 M424 M431 M740 M782 M904 M905

M910 N103 P411 P527 P528

Specfic Compounds

01887K 01887T 01887M

Registry Numbers

1887U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1779U; 1887U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-063541

WEST Generate Collection

L7: Entry 5 of 7

File: USPT

Jan 7, 1997

DOCUMENT-IDENTIFIER: US 5591457 A

TITLE: Method of inhibiting the aggregation of blood platelets and stimulating the immune systems of a human

CLPR:

5. The method of claim 1 wherein the blood aliquot is maintained at a temperature of about 42.5.degree. C. while being contacted with the ozone gas in admixture with the oxygen gas, and ultraviolet radiation.

CLPR:

7. The method of claim 1 wherein time blood aliquot is contacted with the ozone gas in admixture with oxygen gas and ultraviolet radiation for a period of about 3 minutes.

CLPV:

contacting the selected blood aliquot simultaneously with a blood platelet aggregation-inhibiting effective amount of ozone gas in admixture with oxygen gas, and ultraviolet radiation, while maintained at a temperature in the range from about 37.degree. C. to about 43.degree. C. for a period for about 0.5 minutes to about 10 minutes;

WEST**End of Result Set** **Generate Collection**

L7: Entry 7 of 7

File: DWPI

Jan 7, 1997

DERWENT-ACC-NO: 1997-117780

DERWENT-WEEK: 199901

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TITLE: Treatment of e.g. Raynaud's disease - by contacting human blood aliquot with ozone gas and ultraviolet radiation, then administering patient with the disease

INVENTOR: BOLTON, A E

PATENT-ASSIGNEE:

ASSIGNEE	CODE
VASOGEN INC	VASON

PRIORITY-DATA:

1992US-0941327	September 4, 1992
1992US-0832798	February 7, 1992
1994US-0352802	December 1, 1994

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 5591457 A	January 7, 1997	N/A	010	A01N001/00

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-NO
US 5591457A	February 7, 1992	1992US-0832798	CIP of
US 5591457A	September 4, 1992	1992US-0941327	Cont of
US 5591457A	December 1, 1994	1994US-0352802	N/A

INT-CL (IPC): A01N 1/00; A61K 33/00; A61L 2/10

RELATED-ACC-NO: 1993-272579;1993-272580 ;1999-008656

ABSTRACTED-PUB-NO: US 5591457A

BASIC-ABSTRACT:

Treatment of Raynaud's disease comprises: (a) selecting an aliquot of 0.01-400 ml of human blood of a type compatible with the blood of a patient with Raynaud's disease; (b) contacting the selected blood aliquot simultaneously with (i) ozone gas (in an amt. effective to inhibit blood platelet aggregation) in admixt. with oxygen gas and (ii) ultraviolet radiation, while maintaining the temp. at 37-43 deg. C for 0.5-10 mins.; and (c) administering the treated blood aliquot to a human patient with Raynaud's disease.

USE - The process is useful for treatment of conditions associated with blood

platelet aggregation, such as arterial occlusive diseases (such as peripheral vascular disease), thrombotic diseases (such as coronary thrombosis, pulmonary thrombosis, arterial thrombosis or venous thrombosis), circulatory disorders (such as Raynaud's disease, stroke or pre-eclampsia), hypertension and immune system disorders. The treatment increases blood levels of nitric oxide and prostacyclin, and by stimulating T-lymphocytes and monocytes.

ADVANTAGE - The process avoids problems associated with admin. of drugs.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: TREAT DISEASE CONTACT HUMAN BLOOD ALIQUOT OZONE GAS ULTRAVIOLET RADIATE ADMINISTER PATIENT DISEASE

DERWENT-CLASS: B04 D22 P34

CPI-CODES: B04-B04D5; B05-C08; B11-C09; B14-F04; B14-G02D; B14-G03; D09-A;

CHEMICAL-CODES:

Chemical Indexing M1 *01*

Fragmentation Code

M423 M431 M782 M903 P433 P434 P519 P520 P522 P526
P813 Q261 V600 V615

Chemical Indexing M2 *02*

Fragmentation Code

C408 C550 C810 M411 M431 M782 M903 M904 M910 P433
P434 P519 P520 P522 P526 P813 Q261

Specfic Compounds

01887M

Registry Numbers

1887U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1887U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-037986

Non-CPI Secondary Accession Numbers: N1997-097060

WEST

L7: Entry 1 of 7

File: USPT

Oct 24, 2000

DOCUMENT-IDENTIFIER: US 6136308 A

TITLE: Treatment of stress and preconditioning against stress

DEPR:

The application of the oxidative stressor preferably involves exposing the aliquot to a mixture of medical grade oxygen and ozone gas, most preferably by bubbling through the aliquot, at the aforementioned temperature range, a stream of medical grade oxygen gas having ozone as a minor component therein. The ozone gas may be provided by any conventional source known in the art. Suitably the gas stream has an ozone content of from about 1.0-100 .mu.g/ml, preferably 3-70 .mu.g/ml and most preferably from about 5-50 .mu.g/ml. The gas stream is supplied to the aliquot at a rate of from about 0.01-2 liters per minute, preferably 0.05-1.0 liters per minute, and most preferably at about 0.06-0.30 liters per minute (STP). Alternative application of oxidative stressors include addition of peroxides such as hydrogen peroxide to the blood, and addition of biochemically acceptable chemical oxidizing agents such as permanganates and periodates to the blood aliquot.

DEPR:

A group of 63 SHRs was divided into two approximately equal sub-groups, A and B. Sub-group A was given two courses of injections of blood from the pool described in Example 1, the injected blood having been treated with ultraviolet light, ozone-oxygen gas and elevated temperature stressors simultaneously, also as described in Example 1. The first course of injections started at age 7 weeks, and comprised 10 injections, over a period of 10 days, of a 150 .mu.l aliquot of the treated blood intragluteally injected. The second course of injections commenced at age 12 weeks, and comprised 10 injections, administered daily, of the same volumes of treated blood administered in the same manner. The animals of sub-group B were given injections of physiological saline, at the same times and in the same quantities, and thus acted as controls.

CLPR:

4. The process according to claim 3 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

CLPR:

25. The process according to claim 24 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

CLPR:

35. The process according to claim 34 wherein the oxidative environment stressor to which the blood aliquot is subjected is a mixture of medical grade oxygen and ozone, with an ozone content from about 0.1-100 .mu.g/ml.

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USPT,JPAB,EPAB,DWPI,TDBD	poisoning	12757	<u>L11</u>
USPT,JPAB,EPAB,DWPI,TDBD	poisoning and l7	0	<u>L10</u>
USPT,JPAB,EPAB,DWPI,TDBD	l8 and l7	0	<u>L9</u>
USPT,JPAB,EPAB,DWPI,TDBD	ingestion	12223	<u>L8</u>
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USPT,JPAB,EPAB,DWPI,TDBD	l4 same l5	3541	<u>L6</u>
USPT,JPAB,EPAB,DWPI,TDBD	aliquot	48102	<u>L5</u>
USPT,JPAB,EPAB,DWPI,TDBD	blood	242673	<u>L4</u>
USPT,JPAB,EPAB,DWPI,TDBD	l1 same l2	11550	<u>L3</u>
USPT,JPAB,EPAB,DWPI,TDBD	oxygen	524118	<u>L2</u>
USPT,JPAB,EPAB,DWPI,TDBD	ozone	53598	<u>L1</u>

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BIOBUSINESS, BIOMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA,
CANCERLIT, CAPLUS, CEABA, CEN, CIN, CONFSCI, CROPB, CROPUS, DDFB, DDFU,
DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:52:24 ON 15
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=> s oxygen? (p) ozone? (p) blood? (p) aliquot?

0* FILE BIOMERCE
1 FILE BIOSIS
0* FILE BIOTECHABS
0* FILE BIOTECHDS
0* FILE BIOTECHNO
4 FILE CAPLUS
0* FILE CEABA
0* FILE CIN
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L1 QUE OXYGEN? (P) OZONE? (P) BLOOD? (P) ALIQUOT?

=> d rank

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F4 5 USPA~~LL~~
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=> s 11

L2 23 L1

=> dup rem 12

PROCESSING COMPLETED FOR L2
L3 14 DUP REM L2 (9 DUPLICATES REMOVED)

=> d 1-14 ab,bib

L3 ANSWER 1 OF 14 IFIPAT COPYRIGHT 2000 IFI DUPLICATE 1
AB Reflex sympathetic dystrophy in a human patient is treated by collecting
an aliquot of the patient's blood (e.g. 10 cc in
volume), and subjecting it simultaneously to ozone/
oxygen mixture and ultraviolet light, at a predetermined,
elevated (e.g. 42.5 degree(s) C.) temperature, for approximately 3
minutes. After cooling, the treated blood aliquot is
reinjected into the patient via the gluteal muscle. Reflex sympathetic
dystrophy is alleviated following a course of such treatments.
AN 3350152 IFIPAT;IFIUDB;IFICDB
TI TREATMENT OF CHRONIC POST-TRAUMATIC PAIN SYNDROMES
INF Bolton; Anthony E., Tideswell, GB
IN Bolton Anthony E (GB)

PAF Vasogen, Inc., Mississauga, CA
PA Vasogen Inc CA (9437)
EXNAM Polutta, Mark O
EXNAM Bianco, Patricia M
AG Nixon & Vanderhye
PI US 6086552 20000711
AI US 1998-90465 19980604
FI US 6086552 20000711
DT UTILITY
FS MECHANICAL
CLMN 7

L3 ANSWER 2 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AB WO 200041705 A UPAB: 20000818

NOVELTY - The use of an aliquot of blood from a mammal, which has been reacted ex vivo with at least one stressor selected from temperature, ultraviolet light and an oxidative environment, for alleviating or protecting against the symptoms of a disorder involving accelerated rates of apoptosis or necrosis in a mammalian body, is new.

DETAILED DESCRIPTION - The use of an aliquot of blood from a mammal, which has been extracted and reacted ex vivo with at least one stressor selected from temperature above or below body temperature, ultraviolet light and an oxidative environment, for alleviating or protecting against the symptoms of a disorder involving accelerated rates of apoptosis or necrosis in a mammalian body, is new. The medical disorder is selected from radiation exposure disorders, chemical exposure and ingestion disorders, neurological disorders and physical disorders and treatment is by reducing the rate of or susceptibility to apoptosis or necrosis of tissues and organs of the body.

ACTIVITY - Cytostatic; antiemetic; dermatological; antidote; hepatotropic; osteopathic; antibacterial; immunostimulant; antiparkinsonian; neuroprotective; nootropic; vulnerary.

MECHANISM OF ACTION - None given.

USE - The method is useful for treating or preventing a radiation exposure disorder, an ionizing radiation exposure disorder or ultraviolet light exposure disorder, a chemical exposure or ingestion disorder, chemical poisoning, food poisoning from bacterial toxins, toxic drug ingestion overdoses and side effects, disorders from exposure to nerve gases and mustard gas, liver disorders from chemicals and toxins, kidney disorders from ingestion of aminoglycoside antibiotics, radiographic contrast dyes or cyclosporin nephrotoxicity, hematopoietic disorders and immunodeficiency disorders derived from drug or toxin induced bone marrow suppression, infections from bacterial toxins, ozone exposure, solvent exposure or the effects of immunosuppressants. The method is also useful for treating neurological disorders such as Parkinson's disease, senile dementia or Alzheimer's disease and physical traumas such as wounding, burns, loss of blood or a physical accident (all claimed).

Dwg. 0/4

AN 2000-452560 [39] WPIDS

DNC C2000-138032

TI Use of mammalian blood pre-treated with a stressor such as UV light for treatment and prevention against disorders involving apoptosis or necrosis in mammals.

DC B04

IN CHENG, H; DESROSIER, C; HAMET, P; TREMBLAY, J

PA (CHEN-I) CHENG H; (DESR-I) DESROSIER C; (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 89

PI WO 200041705 A1 20000720 (200039)* EN 30p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL

OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES

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LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL

TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2000030280 A [REDACTED] 000801 (200054)
ADT WO 2000041705 A1 [REDACTED] 2000-CA29 20000111; AU 2000030280 A AU 2000-30280
20000111
FDT AU 2000030280 A Based on WO 200041705
PRAI US 1999-115636 19990112

L3 ANSWER 3 OF 14 IFIPAT COPYRIGHT 2000 IFI

AB Symptoms of stress such as elevated blood pressure in mammals are treated, and mammalian bodies are preconditioned to manifest reduced adverse reactions to subsequently encountered stresses, by injecting into

the mammalian patient a small quantity of the patient's own blood which has been previously extracted and subjected extracorporeally to at least one stressor, such as ultraviolet radiation, an oxidative environment, ozone-oxygen and mild heating, especially infra-red radiation causing mild heating. Particularly beneficial combinations of stressors are simultaneous applications of UV radiation and an ozone-oxygen gas mixture

bubbled through the blood sample to provide the oxidative environment, or

simultaneous application of UV radiation, ozoneoxygen gas mixtures and mild heating. One specific use of the invention is in preconditioning against ischemic-reperfusion injury, e.g. prior to surgery.

AN 3404787 IFIPAT;IFIUDB;IFICDB

TI TREATMENT OF STRESS AND PRECONDITIONING AGAINST STRESS

INF Hamet; Pavel, Montreal, CA

Tremblay; Johanne, Montreal, CA

IN Hamet Pavel (CA); Tremblay Johanne (CA)

PAF Centre de Recherche du Centre Hospitalier de l'Universite de Montreal (CHUM), Montreal, CA

Vasogen Ireland Limited, Shannon, IE

PA Vasogen Ireland Ltd IE

Centre de Recherche du Centre Hospitalier de l Universite de Montreal CA (51518)

EXNAM Witz, Jean C

AG Nixon & Vanderhye

PI US 6136308 20001024

AI US 1998-151653 19980911

PRAI CA 1997-2218625 19971020

CA 1998-2230836 19980227

US 1997-58782 19970912 (Provisional)

US 1997-59172 19970917 (Provisional)

FI US 6136308 20001024

DT UTILITY

FS CHEMICAL

CLMN 41

GI 10 Drawing Sheet(s), 15 Figure(s).

L3 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2000 ACS

AB T-cell mediated delayed type hypersensitivity conditions in mammalian patients are alleviated by a process in which an aliquot of blood is withdrawn from the patient, treated extracorporeally with a combination of UV radiation and an oxidative environment, such as an oxygen/ozone gas mixt. bubbled through the aliquot, and then re-injected into the patient.

AN 2000:756534 CAPLUS

TI Extracorporeal treatment of hypersensitivity reaction disorders

IN Sauder, Daniel; Mandel, Arkady; Bolton, Anthony E.

PA Vasogen Ireland Ltd., Ire.

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

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PI WO 2000062788 2 20001026 WO 2000-CA4 [REDACTED] 20000419
W: AE, AG, AR, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI CA 1999-2269364 19990419

L3 ANSWER 5 OF 14 TOXLIT

AB Reflex sympathetic dystrophy in a human patient is treated by collecting an **aliquot** of the patient's **blood** (e.g. 10 mL in vol.), and subjecting it simultaneously to **ozone/oxygen** mixt. and UV light, at a predetd., elevated temp. (e.g. 42.5.degree.) for apprx. 3 min. After cooling, the treated **blood aliquot** is reinjected into the patient via the gluteal muscle. Reflex sympathetic dystrophy is alleviated following a course of such treatments.

AN 2000:42831 TOXLIT

DN CA-133-084290V

TI Treatment of chronic post-traumatic pain syndromes.

AU Bolton AE

SO (2000). U.S. PATENT NO. 6086552 07/11/2000 (Vasogen, Inc.).

CODEN: USXXAM.

CY CANADA

DT Patent

FS CA

LA English

OS CA 133:84290

EM 200008

L3 ANSWER 6 OF 14 IFIPAT COPYRIGHT 2000 IFI DUPLICATE 2

AB An autoimmune vaccine is provided for administration to human patients to

alleviate the symptoms of autoimmune diseases such as rheumatoid arthritis. The vaccine comprises an aliquot of the patient's blood, containing, inter alia, leukocytes having upregulated expression of various cell surface markers and lymphocytes containing decreased amounts

of certain stress proteins. It is produced by subjecting the blood aliquot extracorporeally to certain stressors, namely oxidizing agents, UV radiation and elevated temperature.

AN 3231944 IFIPAT;IFIUDB;IFICDB

TI TREATMENT OF AUTOIMMUNE DISEASES; MODIFYING THE EXTRACTED BLOOD ALIQUOT FROM PATIENT BY SUBJECTING IT TO AN IMMUNE SYSTEM-MODIFYING AMOUNT OF OZONE GAS AND ULTRAVIOLET RADIATION, FORMING AN AUTOIMMUNE VACCINE TO TREAT RHEUMATOID ARTHRITIS

INF Bolton; Anthony E., Toronto, CA

IN Bolton Anthony E (CA)

PAF Vasogen Ireland Limited, IE

PA Vasogen Ireland Ltd IE (51518)

EXNAM Chan, Christina Y

EXNAM Nolan, Patrick

AG Hirons, Robert G.

Ridout & Maybee

PI US 5980954 19991109

AI US 1996-754348 19961122

XPD 7 Feb 2012

RLI US 1992-832798 19920207 CONTINUATION-IN-PART ABANDONED

US 1992-941327 19920904 CONTINUATION-IN-PART ABANDONED

US 1994-352802 19941201 CONTINUATION-IN-PART 5591457

PRAI GB 1996-176110 19960822

FI US 5980954 19991109

US 5591457

DT UTILITY
FS CHEMICAL
OS CA 131:317775
CLMN 12
GI 1 Drawing Sheet(s), 1 Figure(s).

L3 ANSWER 7 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AB WO 9913890 A UPAB: 20001102

NOVELTY - An aliquot of mammalian blood subjected extracorporeally to at least one stressor selected from an oxidative environment, UV radiation and elevated temperature up to about 45 deg. C is used in treating symptoms of stress and/or in preconditioning against the adverse effects of stress to be encountered subsequently.

ACTIVITY - None given.

MECHANISM OF ACTION - Blood cell SAP kinase pathway activator.

USE - The method is used in treatment of unstable angina and in decreasing infarct size in mammals. It is used in protecting mammalian donor organs, a treated aliquot of the donor's blood being administered to

the donor prior to removal of the organ. The method is used in preconditioning mammalian patients to better withstand the adverse effects

of ischemic stress to be encountered as a result of subsequent ischemia-reperfusion of a body organ of the patient, particularly the kidney, heart, liver, intestine or brain. The method is used when the patient suffers from atherosclerosis and is scheduled for general anesthesia prior to ischemia of a vital organ in a surgical procedure

e.g.

open-heart surgery with cardio-pulmonary bypass.

Dwg.1/15

AN 1999-243940 [20] WPIDS

CR 1999-601984 [52]

DNC C1999-071156

TI Treatment of symptoms of stress e.g. ischemic stress.

DC B04

IN HAMET, P; TREMBLAY, J

PA (UYMO-N) UNIV MONTREAL CENT RECH CENT HOSPITALIER; (VASO-N) VASOGEN IRELAND LTD; (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 83

PI WO 9913890 A1 19990325 (199920)* EN 51p
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
OA PT SD SE SZ UG ZW
W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE
GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG
MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
UZ VN YU ZW

AU 9891480 A 19990405 (199933)

CA 2230836 A1 19990827 (200005) EN

EP 1011696 A1 20000628 (200035) EN

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
RO SE SI

US 6136308 A 20001024 (200055)

ADT WO 9913890 A1 WO 1998-CA869 19980911; AU 9891480 A AU 1998-91480

19980911;

CA 2230836 A1 CA 1998-2230836 19980227; EP 1011696 A1 EP 1998-943592
19980911, WO 1998-CA869 19980911; US 6136308 A Provisional US 1997-58782
19970912, Provisional US 1997-59172 19970917, US 1998-151653 19980911

FDT AU 9891480 A Based on WO 9913890; EP 1011696 A1 Based on WO 9913890

PRAI CA 1998-2230836 19980227; US 1997-58782 19970912; US 1997-59172
19970917; CA 1997-2218625 19971020

L3 ANSWER 8 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

AB CA 2218625 A UPAB: 19991210

NOVELTY - Use of an aliquot of compatible mammalian blood which has been subjected extracorporeally to at least one stressor selected from an oxidative environment, ultra-violet radiation

and elevated temperature up to 45 deg. C, for the treatment of stress and/or preconditioning against the adverse effect of stress to be encountered subsequently.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(A) use of an aliquot of compatible mammalian **blood** as above for the treatment of unstable angina and for decreasing infarct size; and

(B) use of an aliquot of compatible mammalian **blood** as above for protecting mammalian donor organs for transplantation.

ACTIVITY - Tranquilizer; antianginal; vasotropic.

Blood from sacrificed inbred genetically hypertensive rats (SHR's) was collected, treated with sodium citrate anticoagulant and pooled. A portion of the **blood** was then placed in a sterile container and subjected to ultraviolet radiation (253.7 nm), ozone /oxygen gas (13.5-15.5 micro g/ml) bubbled through the **blood** sample at 60 ml/minute, increasing to 180 ml/minute, and 42.5 deg. C for 3 minutes. A further portion of untreated **blood** was pooled as a control.

A total of 44 7 week old SHR's were divided into 3 groups, A, B and C. Group A received a daily intragluteal injection of 150 micro l of the treated **blood** for 10 days. Group B received the untreated **blood** in the same amount and at the same time daily. Group C received at the same time and in the same amount, an injection of physiological saline. Four days after completion of the injections the animals had a telemetry probe surgically inserted into the femoral artery of each animal, for measuring heartbeat, systolic **blood** pressure, and diastolic **blood** pressure. These parameters were measured for 10 days following surgery. Results are shown in the figure.

MECHANISM OF ACTION - None given.

USE - The process is used for the treatment of stress and unstable angina, for preconditioning a patient to improve the patient's resistance and reaction to subsequently encountered stress, for the reduction of infarct size and for protecting mammalian donor organs for transplantation

(claimed). The process is especially useful in patients suffering from hypertension, and can help prevent ischemia.

ADVANTAGE - The process preconditions patients such that they exhibit notably reduced adverse reactions to subsequently encountered stress, as compared with a similar but untreated patient. The process protects tissues and organs from stress-induced damage. The process can increase the useful life of transplant organs.

DESCRIPTION OF DRAWING(S) - The figure shows the results of tests on inbred genetically hypertensive rats which were injected with treated **blood** (A), untreated **blood** (B) and saline (C).

Dwg.1/8

AN 1999-601984 [52] WPIDS

CR 1999-243940 [19]

DNC C1999-175258

TI Use of an aliquot of compatible mammalian blood for the treatment of stress and/or preconditioning against the adverse effects of stress.

DC B04 B06

IN HAMET, P; TREMBLAY, J

PA (HAME-I) HAMET P; (TREM-I) TREMBLAY J

CYC 1

PI CA 2218625 A1 19990312 (199952)* EN 27p

ADT CA 2218625 A1 CA 1997-2218625 19971020

PRAI US 1997-58867 19970912

L3 ANSWER 9 OF 14 TOXLIT

AB An autoimmune vaccine is provided for administration to human patients to alleviate the symptoms of autoimmune diseases such as rheumatoid arthritis. The vaccine comprises an aliquot of the patient's **blood**, contg., inter alia, leukocytes having upregulated expression of various cell surface markers and lymphocytes contg.

decreased amts. [REDACTED] certain stress proteins. It is produced by subjecting the **blood aliquot** extracorporeally to certain stressors, namely oxidizing agents, UV radiation and elevated temp. **Blood** from patients with active rheumatoid arthritis was removed and treated with a gaseous **oxygen/ozone** mixt. and UV radiation at 253.7 nm at 42.5.degree. for 3 min before return to the patients.

AN 1999:90843 TOXLIT
DN CA-131-317775H
TI Treatment of autoimmune diseases with extracorporeally treated blood vaccines.
AU Bolton AE
SO (1999). U.S. PATENT NO. 5980954 11/09/1999 (Vasogen Ireland Limited).
CODEN: USXXAM.
CY IRELAND
DT Patent
FS CA
LA English
OS CA 131:317775
EM 199912

L3 ANSWER 10 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD

DUPLICATE

3

AB US 5834030 A UPAB: 19990107
Inducing relaxation of the smooth muscle of **blood vessels** of a human, to cause enlargement in the diameter of the **blood vessels**, comprises: (a) extracting a 0.01-400 ml **aliquot** of **blood**; (b) *in vitro* contacting the extracted **blood** with a nitric oxide concentration-increasing amount of **ozone** gas, and ultraviolet (UV) radiation for 0.5-10 minutes at 0-56 deg. C, which does not cause marked haemolysis in the **blood** nor major loss of platelets from the **blood**, to produce an **aliquot** of treated **blood**; and (c) increasing the nitric oxide concentration in the **blood** of the patient by administering the treated **blood**. The **ozone** gas is an **oxygen/ozone** gas stream having an **ozone** concentration of 0.5-100 mu g/ml. Also claimed is a method of increasing the nitric oxide concentration of the **blood**, comprising: (a') as (a) above; (b') as (b) above; (c') monitoring the increase in nitric oxide concentration in at least a portion of the **aliquot** of treated **blood**; and (d') re-administering at least a portion of the treated **blood aliquot** to the patient.

USE - The process is used to alleviate the symptoms of peripheral vascular disease (claimed). The process can also be used in the treatment of other disease states associated with inadequate nitric oxide levels in the **blood**, including stroke, high **blood** pressure, neurological conditions (e.g. depression), tumours, bacterial, viral, protozoal and fungal infections, and impotence.

Dwg.0/0

AN 1999-008656 [01] WPIDS
CR 1993-272579 [34]; 1993-272580 [34]; 1997-117780 [11]
DNN N1999-006223 DNC C1999-002925
TI Inducing relaxation of the smooth muscle of blood vessels - comprises extracting an aliquot of blood, *in vitro* contacting the blood ozone gas and ultraviolet radiation, and re-administering to the patient.
DC B04 D22 P34
IN BOLTON, A E
PA (VASO-N) VASOGEN INC
CYC 1
PI US 5834030 A 19981110 (199901)* 11p
ADT US 5834030 A CIP of US 1992-832798 19920207, CIP of US 1992-941326 19920904, US 1995-477818 19950607
PRAI US 1995-477818 19950607; US 1992-832798 19920207; US 1992-941326 19920904

Treatment or prevention of diseases or medical disorders, which can be ameliorated by delivery of NO (or its biological equivalent) to tissues affected by the disease or disorder (in humans or animals), comprises administering: (i) nitrosyl-heme-containing donors of NO, (ii) a heme-based **blood** substitute and inhaled NO, (iii) CO-derivatised haemoglobin (Hb) and a nitrosated Hb; or (iv) Hb beta -chains.

Also claimed are: (1) a method for delivering CO to tissues in animals or humans, comprising administering CO-derivatised Hb; (2) a method for treating shock in humans or animals, comprising administering Hb alpha -chains; (3) a method for measuring NO equivalents in S-nitrosohaemoglobin (SNH) and nitrosyl-Fe(II)-Hb (NFH) in **blood** comprising red **blood** cells (RBCs), comprising: (a) lysing the RBCs of a **blood** sample; (b) preparing a desalted protein fraction of the lysed RBCs; (c) subjecting the fraction to photolysis, thus liberating NO from SNH and NFH; and (d) quantitating the NO in the fraction by measuring a chemiluminescence signal generated by a chemical reaction between NO and **ozone**, thus measuring NO equivalents in SNH and NFH; (4) a method for assaying NO production in disease states, comprising: (a) lysing the RBCs of a **blood** sample; (b) preparing a protein fraction of the lysed RBCs; (c) subjecting the fraction to photolysis, thus liberating NO from SNH and NFH; and (d) quantitating the NO in the fraction by measuring a chemiluminescence signal generated by a chemical reaction between NO and **ozone**; (5) a method for assaying NO equivalents in SNH and NFH in purified Hb, comprising measuring NO equivalents in the purified Hb by photolysis-chemiluminescence; (6) a method for measuring NO production in SNH and

NFH

in RBCs, comprising: (a) isolating washed RBCS from **blood** and lysing the RBCs to give a lysate; (b) desalting the lysate; and (c) measuring NO equivalents in the lysate by photolysis-chemiluminescence;

(7) a method for measuring NO bound to NFH in RBCs, comprising:

making a protein fraction from the RBCs; (b) treating the protein fraction with HgCl₂ followed by exposure to air; and (c) subjecting the protein fraction

to photolysis of the NO ligand of NFH followed by detection of NO by chemiluminescence; (8) a method for assaying SNH, comprising: (a) isolating RBCs from **blood** and lysing the RBCs to give a lysate; (b) desalting the lysate; (c) contacting an **aliquot** of the lysate with mercury ions in excess of protein concentration, thus obtaining a mercury-treated **aliquot** and an untreated **aliquot**; (d) exposing the treated and untreated **aliquots** to **oxygen**; (e) measuring NO equivalents in the **aliquots** by photolysis-chemiluminescence; and (f) determining a quantity of SNH from the NO equivalents measured in (e); (9) a method for assaying thiol-bound NO in SNH in RBCs, comprising: (a) isolating washed RBCs from **blood**; (b) lysing the RBCs to give a lysate; (c) desalting the lysate; (d) dividing the lysate into (i) an **aliquot** contacted with mercury ions in excess of the protein concentration of the lysate

and

(ii) an **aliquot** which is untreated with mercury; (e) exposing both **aliquots** to **oxygen**; (f) isolating a mercury-treated low molecular weight fraction and an untreated low molecular weight fraction from the **aliquots**; (g) contacting the low molecular weight fractions with excess low molecular weight thiol under acidic conditions, thus producing S-nitrosothiol; (h) measuring NO liberated from S-nitrosothiol in the fractions of (g) by photolysis-chemiluminescence; and (i) determining a quantity of thiol-bound NO in SNH from a difference in measurements in (h); (10) a method for measuring SNH and NFH in RBCs, comprising: (a) isolating washed

RBCs from **blood**; (b) lysing the RBCs; (c) desalting the lysate; and (d) measuring NO equivalents from the lysate by photolysis-chemiluminescence; (11) a method for making stable nitrosyl-

deoxyhaemoglobin comprising adding NO to deoxyhaemoglobin in an aqueous solution such that the ratio of NO to heme is below 1:100 or more than 0.75; (12) a method for making SNO-oxyhaemoglobin, comprising adding NO

to

an aqueous solution of oxyhaemoglobin and a buffer with a pK of at least 9.4, at a concentration of 10-200 mM, at pH 7.4; (13) a method for making nitrosyl-oxyhaemoglobin, comprising adding NO to oxyhaemoglobin in an aqueous solution such that the ratio of NO to Hb is below 1:30; (14) Hb conjugated to an NO-donor; (15) a composition comprising Hb and one or more NO donors; (16) nitrosylhaemoglobin conjugated to one or more electron acceptors; (17) a composition comprising nitrosylhaemoglobin and one or more electron acceptors; (18) Hb conjugated to nitric oxide synthase; (19) a composition comprising Hb and nitric oxide synthase;

(20)

isolated erythrocytes comprising nitrosylhaemoglobin; (21) a method for making isolated erythrocytes comprising nitrosylhaemoglobin comprises incubating deoxygenated erythrocytes in a solution comprising NO; (22) a method for assaying SNH comprising (a)-(c) as in (9) followed by: (d) contacting an aliquot of the lysate of (c) with mercury ions in excess over protein concentration, to obtain a mercury-treated aliquot and an untreated aliquot; (e) exposing the mercury treated aliquot and the untreated aliquot to oxygen; (f) measuring NO equivalents in the two aliquots by photolysis chemoluminescence; (g) determining the quantity of SNH from the NO equivalents measured in (f); (23) a method for measuring SNH and NFH in a sample comprising (a)-(c) as in (9) followed by the step of measuring NO equivalents in the lysate by photolysis-chemoluminescence; (24) a method for assaying NFH comprising (a)-(f) as in (22) where step (f) gives information about SNH and NFH + SNH concentration NFH concentration is assayed by subtracting SNH concentration form the figure for NFH = SNH concentration.

USE - The inventions can be used for producing and isolating S-nitrosohaemoglobin ((SNO-Hb) e.g. for use in therapy) by reaction of Hb with S-nitrosothiol in procedures which avoid oxidation of the heme. The methods can also be used for producing isolated, nitrosated and nitrated derivatives of Hbs in which the heme iron may or may not be oxidised. The methods can also be used as methods of therapy for conditions requiring oxidation, scavenging of free radicals, or release of NO⁺ groups to tissues, involving administration of compositions comprising SNO-Hb, thiols and/or NO-donating agents. Examples of such conditions include ischaemic injury, hypertension, angina, reperfusion injury, inflammation or diseases characterised by thrombosis.

Dwg.0/26

AN 1998-467160 [40] WPIDS
DNN N1998-363982 DNC C1998-141579
TI Haemoglobin(s) modified with S-nitroso groups, and related compounds - used in treatment of e.g. ischaemic injury, hypertension, angina, reperfusion injury or inflammation.
DC B04 S03
IN GOW, A J; STAMLER, J S
PA (UYDU-N) UNIV DUKE MEDICAL CENT
CYC 22
PI WO 9834955 A1 19980813 (199840)* EN 167p
RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL PT SE
W: AU CA JP US
AU 9861502 A 19980826 (199902)
EP 1015490 A1 20000705 (200035) EN
R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
ADT WO 9834955 A1 WO 1998-US2383 19980205; AU 9861502 A AU 1998-61502 19980205; EP 1015490 A1 EP 1998-906222 19980205, WO 1998-US2383 19980205
FDT AU 9861502 A Based on WO 9834955; EP 1015490 A1 Based on WO 9834955
PRAI US 1997-874992 19970612; US 1997-796164 19970206

L3 ANSWER 12 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
AB CA 2206180 A UPAB: 19990518
NOVELTY - The process for treating reflex sympathetic dystrophy (RSD)

comprises extracting an aliquot of blood from the patient, treating the extracted aliquot extracorporeally with ultraviolet light and an ozone/oxygen mixture, and reinjecting the treated aliquot into the patient.

ACTIVITY - Vasoconstrictors/Vasodilators

MECHANISM OF ACTION - Stimulates leucocytes and/or platelets to increase the release of vasodilators and/or vasoconstrictors.

USE - The treated aliquot is useful for treating reflex sympathetic dystrophy in human patient (claimed). A treated aliquot may also be useful for treating diabetic ulcers. A patient received 9 treatments (3 treatments/week for 3 weeks) followed by a further course of 9 treatments after a 3 week interval and after a 1-2 week interval, treatments resumed on a twice weekly basis for 6 weeks finally followed by 1 treatment/week for 4 weeks. The patient reported a substantial alleviation, almost complete cure of RSD symptoms (no data given).

ADVANTAGE - Enhancement of endothelial performance is achieved therefore improving vascular condition. The source of the blood is from the patient him-/herself therefore not requiring extraneous antigens.

Dwg.0/0

AN 1999-215431 [19] WPIDS

DNC C1999-063541

TI Treating reflex sympathetic dystrophy comprises collecting aliquot of blood from patient, subjecting it to ozone/oxygen mixture and ultraviolet light and reinjecting blood into patient.

DC B04 P31 P34

IN BOLTON, A E

PA (VASO-N) VASOGEN INC

CYC 2

PI CA 2206180 A 19981127 (199919)* 18p
US 6086552 A 20000711 (200037)†

ADT CA 2206180 A CA 1997-2206180 19970527; US 6086552 A US 1998-90465
19980604

PRAI CA 1997-2206180 19970527; US 1998-90465 19980604

L3 ANSWER 13 OF 14 WPIDS COPYRIGHT 2000 DERWENT INFORMATION LTD
DUPLICATE

4

AB US 5591457 A UPAB: 19990107

Treatment of Raynaud's disease comprises: (a) selecting an aliquot of 0.01-400 ml of human blood of a type compatible with the blood of a patient with Raynaud's disease; (b) contacting the selected blood aliquot simultaneously with (i) ozone gas (in an amt. effective to inhibit blood platelet aggregation) in admixt. with oxygen gas and (ii) ultraviolet radiation, while maintaining the temp. at 37-43 deg. C for 0.5-10 mins.; and (c) administering the treated blood aliquot to a human patient with Raynaud's disease.

USE - The process is useful for treatment of conditions associated with blood platelet aggregation, such as arterial occlusive diseases (such as peripheral vascular disease), thrombotic diseases (such as coronary thrombosis, pulmonary thrombosis, arterial thrombosis or venous thrombosis), circulatory disorders (such as Raynaud's disease, stroke or pre-eclampsia), hypertension and immune system disorders. The treatment increases blood levels of nitric oxide and prostacyclin, and by stimulating T-lymphocytes and monocytes.

ADVANTAGE - The process avoids problems associated with admin. of drugs.

Dwg.0/0

AN 1997-117780 [11] WPIDS

CR 1993-272579 [34]; 1993-272580 [34]; 1999-008656 [01]

DNN N1997-097060 DNC C1997-037986

TI Treatment of e.g. Raynaud's disease - by contacting human blood aliquot with ozone gas and ultraviolet radiation, then administering patient with

the disease.
 DC B04 D22 P34
 IN BOLTON, A E
 PA (VASO-N) VASOGEN INC
 CYC 1
 PI US 5591457 A 19970107 (199711)* 10p
 ADT US 5591457 A CIP of US 1992-832798 19920207, Cont of US 1992-941327
 19920904, US 1994-352802 19941201
 PRAI US 1992-941327 19920904; US 1992-832798 19920207; US 1994-352802
 19941201

L3 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2000 ACS DUPLICATE 5
 AB The use of ozone in the treatment of peripheral vascular disease (PWD) is increasing. The purpose of this study was to evaluate the effect of ozone on Hb oxygen affinity in Type-2 diabetic patients with PVD. Twenty diabetic patients presenting with PVD (Clin. stage II-IV according to Fontaine) and 20 non-diabetic healthy matched subjects were studied. In both groups, aliquots of blood were ozonized with mixts. of oxygen-ozone (O₂-O₃) to reach end-concns. of 6.5, 13, 26 and 78 .mu.g O₃ per mL of substrate. At baseline, diabetic patients presented significantly lower Hb oxygen affinity values but higher plasma levels of free Hb and malonyl dialdehyde (MDA) than controls. In both diabetic patients and controls, exposure of blood to ozone reduced Hb oxygen affinity in an all-or-none fashion, without changing 2,3-diphosphoglycerate concns. in erythrocytes. Both free Hb and MDA concns. showed significant, dose-dependent increases after blood ozonation. Thus, ozone caused a significant increase in oxygen unloading of Hb in both normal subjects and Type-2 diabetic patients with PVD.

AN 1996:47330 CAPLUS
 DN 124:164900
 TI Influence of ozone on hemoglobin oxygen affinity in type-2 diabetic patients with peripheral vascular disease: In vitro studies
 AU Coppola, L.; Giunta, R.; Verrazzo, G.; Luongo, C.; Sammartino, A.; Vicario, C.; Giugliano, D.
 CS Department Gerontology, Geriatrics and Metabolic Diseases, Second University Naples, Naples, Italy
 SO Diabete Metab. (1995), 21(4), 252-5
 CODEN: DIMEDU; ISSN: 0338-1684
 DT Journal
 LA English

=> file ca, medline ,biosis

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=> s ingestion? or poisoning? or toxin?

L4 652553 INGESTION? OR POISONING? OR TOXIN?

=> s bllood?

L5 35 BLLOD?

=> s blood?

L6 3649758 BLOOD?

=> s oxygen?

L7 933131 OXYGEN?

=> s ozone?

L8 66011 OZONE?

=> s 18 (p) 17 (p) 14 (p) 16

L9 0 L8 (P) L7 (P) L4 (P) L6

=> s 18 (p) 17 (p) 16

L10 88 L8 (P) L7 (P) L6

=> s disorder? or 14

L11 1764157 DISORDER? OR L4

=> s 14 and 110

L12 0 L4 AND L10

=> s 111 and 110

L13 3 L11 AND L10

=> dup rem 113

PROCESSING COMPLETED FOR L13

L14 3 DUP REM L13 (0 DUPLICATES REMOVED)

=> d 1-3 ab,bib

L14 ANSWER 1 OF 3 CA COPYRIGHT 2000 ACS

AB A review with 13 refs. Low-dose **ozone** therapy in the form of extracorporeal **blood** treatment produces an activation of the erythrocytic metab. which, among other factors, becomes noticeable by an increase in ATP; this implies a general activation of the red **blood** cell metab. A quant. increase in the deoxygenating substance 2,3-diphosphoglycerate is the cause for the **oxygen**-liberating effect of **ozone**, and for a participation of the peroxides formed from **ozone** in the pentose phosphate path of glycolysis. On the basis of these effects, we are able to explain, at least in part, the pos. effects of therapy in the form of treatment with

reintroduced, ozone-enriched blood in arterial circulatory disorders, esp. in diabetics. As far as the effect of ozone on the white blood cells is concerned, investigations carried out by BOCCI have now provided us with a knowledge of the dose-dependent effect of ozone on immune competent cells, which also makes up an important building block in the pattern of explanation for an effective ozone therapy, particularly in the indications: infections, virus-dependent diseases, as well as in the field

of geriatrics. These and further results from basic research provide a new basis for the performance of clin. controlled studies in the field of the indications cited.

AN 126:98750 CA
TI Metabolic activation under ozone-therapy at low doses
AU Viebahn, R.
CS Italy
SO Acta Toxicol. Ther. (1996), 17(2-3), 87-100
CODEN: ATTHEH; ISSN: 0393-635X
PB Maccari
DT Journal; General Review
LA English

L14 ANSWER 2 OF 3 CA COPYRIGHT 2000 ACS

AB The use of ozone in the treatment of peripheral vascular disease (PWD) is increasing. The purpose of this study was to evaluate the effect

of ozone on Hb oxygen affinity in Type-2 diabetic patients with PVD. Twenty diabetic patients presenting with PVD (Clin. stage II-IV according to Fontaine) and 20 non-diabetic healthy matched subjects were studied. In both groups, aliquots of blood were ozonized with mixts. of oxygen-ozone (O₂-O₃) to reach end-concns. of 6.5, 13, 26 and 78 .mu.g O₃ per mL of substrate. At baseline, diabetic patients presented significantly lower Hb oxygen affinity values but higher plasma levels of free Hb and malonyl dialdehyde (MDA) than controls. In both diabetic patients and controls, exposure of blood to ozone reduced Hb oxygen affinity in an all-or-none fashion, without changing 2,3-diphosphoglycerate concns. in erythrocytes. Both free Hb and MDA concns. showed significant, dose-dependent increases after blood ozonation. Thus, ozone caused a significant increase in oxygen unloading of Hb in both normal subjects and Type-2 diabetic patients with PVD.

AN 124:164900 CA
TI Influence of ozone on hemoglobin oxygen affinity in type-2 diabetic patients with peripheral vascular disease: In vitro studies
AU Coppola, L.; Giunta, R.; Verrazzo, G.; Luongo, C.; Sammartino, A.; Vicario, C.; Giugliano, D.
CS Department Gerontology, Geriatrics and Metabolic Diseases, Second University Naples, Naples, Italy
SO Diabete Metab. (1995), 21(4), 252-5
CODEN: DIMEDU; ISSN: 0338-1684
DT Journal
LA English

L14 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2000 BIOSIS

AB The effect on ozone on lipid peroxidation status, some indices of carbohydrate metabolism, pH status, and gas composition was studied in dog's blood taken in the period following resuscitation after hemorrhagic shock. The blood was exposed to an ozone-oxygen mixture. Lipid peroxidation was assessed based on the content of molecular products. Indices of carbon dioxide and oxygen status were studied. It was found that extracorporeal processing of blood with ozone at a concentration of 0.048 mg/l corrected postischemic disorders and saturated the blood with oxygen without a simultaneous activation of lipid peroxidation.

AN 1991:427723 BIOSIS
DN BA92:83888
TI LIPID PEROXIDATION AND GAS COMPOSITION IN THE BLOOD AFTER OZONE THERAPY
FOLLOWING RESUSCITATION.
AU ALMAZOV V A; KONTORSHCHIKOVA K N; GUREVICH V S
CS LENINGR. RES. INST. CARDIOL., MINIST. HEALTH RSFSR, LENINGRAD, USSR.
SO BYULL EKSP BIOL MED, (1991) 111 (5), 486-488.
CODEN: BEBMAE. ISSN: 0365-9615.
FS BA; OLD
LA Russian

=> s 14 (p) 16

L15 60204 L4 (P) L6

=> s 115 (p) oxygen? (p) ozone?

L16 0 L15 (P) OXYGEN? (P) OZONE?

=> s (p) oxygen? (p) ozone?

MISSING TERM BEFORE '(P'

Search expressions cannot begin with operators.

=> s oxygen? (p) ozone?

L17 4847 OXYGEN? (P) OZONE?

=> s 115 and 117

L18 1 L15 AND L17

=> d

L18 ANSWER 1 OF 1 BIOSIS COPYRIGHT 2000 BIOSIS
AN 1997:263577 BIOSIS
DN PREV199799570180
TI Use of ozone in medicine.
AU Idov, I. E.
CS Dep. Anesthesiol. Resusc., Ural State Med. Acad., Ekaterinburg Russia
SO Anesteziologiya i Reanimatologiya, (1997) Vol. 0, No. 1, pp. 90-94.
ISSN: 0201-7563.
DT General Review
LA Russian

=> d ab,bib

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